MEASLES RESPONSE GUIDANCE

For Employers in Non-Health Care Settings

Measles is one of the most contagious viral infectious diseases. The Missouri Department of Health and Senior Services (DHSS) developed this guidance, based on the most current public health recommendations, to help employers address a measles situation in a workplace when a measles case or measles exposure occurs.

The average timeframe from exposure to onset of the symptoms of measles is 11-12 days. The measles rash occurs an average of 14 days following an exposure, but that time could be as short as 7 days and as long as 21 days. Persons can spread measles to others from 4 days before through the 4 days after the rash appears. Persons exposed and infected with measles are generally not infectious during the first 7 days after an exposure though could spread measles in the following 7 to 21 days, even before knowing they have the disease. Therefore, persons with exposures to measles are typically observed for 21 days following the last exposure to determine if measles symptoms develop.

Exposure means sharing the same airspace as someone with measles, including 2 hours after an infected person has left the airspace. No minimum duration has been established for exposure, but longer exposures and face-to-face interactions represent a higher risk for measles transmission than brief exposures.

Immunity to measles can significantly decrease the risk of developing measles after exposure to the virus. The following is considered proof of measles immunity in adults:

- Birth before 1957.
- Written documentation with date of receipt of at least one dose of measles-containing vaccine. People who received the killed measles vaccine between 1963 and 1967, or are unsure of their vaccine history, need a booster dose of the live measles vaccine to be considered immune.
- Laboratory evidence of measles immunity (positive antibody titer also called an IgG antibody test).
- Laboratory confirmation of previous measles disease.

High-Risk Measles Exposure

Involves those with unknown or no documented immunity, as well as those who are at a high-risk of experiencing severe illness if they become infected with measles, or to whom the transmission potential is high. Examples of high-risk contacts include immunocompromised persons, pregnant women, household contacts, contacts with prolonged exposure, and persons in settings with known unvaccinated persons (e.g., infant care settings). A high-risk setting is one in which transmission risk is high (e.g. setting with many measles-susceptible persons, an infant care setting, etc.), or where there are multiple high-risk contacts, particularly persons who could experience severe disease if infected with measles. Those who have one dose of measles vaccine but high intensity exposure to a case of measles, such as sharing living quarters, sharing small, enclosed workspaces or vehicles, or engaging in regular or prolonged close contact, are also considered at high risk.

Exclusion from Work for Those with High-Risk Measles Exposure

- Any exposed worker who cannot show proof of immunity should be excluded from work to prevent possible measles transmission beginning from day 7 through day 21 after the last measles exposure (day of exposure is day 0) and may return on day 22 unless proof of immunity is provided sooner.
- If the excluded worker receives one documented dose of MMR within 72 hours after an initial exposure to measles, they may return to work immediately. A second dose of MMR should be given at least 28 days later to complete the 2-dose series.
- Unvaccinated workers who do not receive a dose of MMR within 72 hours of exposure, including those who have a medical or other exemption to vaccination, should be excluded from work beginning from day 7 through day 21 after the last measles exposure (day of exposure is day 0). If an exposed individual can produce alternate evidence of immunity, such as a blood test showing antibodies to measles (also called an IgG antibody test), exclusion may be downgraded to symptom monitoring instead after the consultation with their local public health agency or DHSS. If there are multiple cases of measles at a workplace, the worker's exclusion might be extended beyond 21 days, since the 21-day period would reset with the identification of each individual new case.
- Workers with high intensity exposure to a case, and who have only one documented dose of MMR, should be excluded until they either receive a second dose of vaccine as soon as possible (at least 28 days needed since they received the first dose), or demonstrate immunity with a positive IgG titer. If the worker does not receive a second vaccine and has a negative IgG titer (or does not get one at all), they should be excluded from work beginning from day 7 through day 21 after the measles exposure (day of exposure is day 0).

Quarantine Recommendations for Those with High-Risk Measles Exposure

- Excluded employees should quarantine to prevent infecting others. Quarantine includes staying at home, away from others, and away from all public places, including work, social activities, sports, recreation events, all extracurricular activities, and public places like grocery stores and churches.
- If symptoms consistent with measles develop during the quarantine period, the employee should immediately isolate, and the local public health agency or DHSS need to be notified. Persons quarantining should be instructed to notify their local public health agency or DHSS if symptoms occur.

Low Risk Measles Exposure

Occurs among persons with documented immunity or one documented MMR dose, AND without high-intensity exposure. Any exposed worker who can show proof of immunity may continue working but must monitor for signs and symptoms of measles for 21 days after last known exposure. Workers who have only one documented dose of MMR, but had low intensity exposure to a case, are strongly recommended to get a second dose of MMR as soon as possible, and to self-monitor for symptoms for 21 days after last known exposure to a case.

This document is meant only as guidance for employers and is not an order of the Missouri Department of Health and Senior Services. Responding to measles in a workplace can be complex, time-consuming, and warrant additional situation specific guidance. DHSS strongly recommends that employers collaborate with local public health authorities and DHSS during the response to provide employees with the best public health recommendations.